

REMARKS

Claims 1 and 4-21 are currently pending in the above-identified application.

Applicant respectfully requests reconsideration in light of the following remarks.

Claims 1, 4-7 and 10-12 stand rejected under 35 U.S.C. §102(e) as being anticipated by King et al. Applicant respectfully traverses this rejection.

Claim 1 recites a semiconductor assembly that includes “a support structure having a top surface, wherein said support structure is a film” and “at least one semiconductor die having a top and bottom surface”. The bottom surface has “a smaller area than said top surface of said support structure”. Also, the semiconductor die is “secured at its bottom surface to said top surface of said support structure by a flowable adhesive material which does not extend past a perimeter of said at least one semiconductor die”. Claims 4-7 and 10-12 depend from claim 1.

King et al. discloses a stack of packaged memory die that includes a board 18, and integrated circuit semiconductor devices 14A-D. The semiconductor device 14D is attached to the board 18 by way of an adhesive 22D which may be flowable.

Applicant respectfully disagrees with the contention in the Office action that King et al. teaches or suggests that the “flowable adhesive material … does not extend past a perimeter of said at least one semiconductor die” as recited in claim 1. The only disclosure of the location of the adhesive 22D is found in the figures of King et al., specifically FIGS. 1, 3 and 13A. The figures in question are schematic in nature and do not necessarily represent an accurate location and/or accurate dimensions of various features illustrated therein. Furthermore, the figures are an incomplete disclosure in that the

adhesive 22D may indeed “extend past a perimeter of said at least one semiconductor die” without such extension being shown in the figures. For example, FIGS. 1, 3, and 13A are all front views, and the adhesive 22D could extend past the perimeter of the semiconductor device 14D on the back side without being visible in FIGS. 1, 3, and 13A. Since there is no further disclosure regarding the location of the adhesive 22D, applicants respectfully submit that King et al. does not teach or suggest that the “flowable adhesive material ... does not extend past a perimeter of said at least one semiconductor die” as recited in claim 1.

Claims 8 and 9 stand rejected under 35 U.S.C. §103 as being unpatentable over King et al. in view of Ball. Applicant respectfully traverses this rejection. Claims 8 and 9 depend from claim 1. As noted above, King et al. fails to teach or suggest “a flowable adhesive material which does not extend past a perimeter of said at least one semiconductor die”. Ball is relied upon as allegedly disclosing a distance between an electrical contact area and a perimeter of at least one semiconductor die being less than or equal to about 200 microns. Ball does not, however, add any relevant disclosure to King et al. with regard to “a flowable adhesive material which does not extend past a perimeter of said at least one semiconductor die”.

Claims 13 and 14 stand rejected under 35 U.S.C. §103 as being unpatentable over King et al. in view of Fukui et al. Applicant respectfully traverses this rejection. Claims 13 and 14 depend from claim 1. King et al. fails to teach or suggest “a flowable adhesive material which does not extend past a perimeter of said at least one semiconductor die”. Fukui et al. is relied upon as allegedly disclosing an encapsulating material for

encapsulating a die, an electrical communication, and at least a portion of a support structure. Fukui et al. does not, however, add any relevant disclosure to King et al. with regard to “a flowable adhesive material which does not extend past a perimeter of said at least one semiconductor die”.

Claims 15-21 stand rejected under 35 U.S.C. §103 as being unpatentable over King et al. in view of Lo et al. Applicant respectfully traverses this rejection.

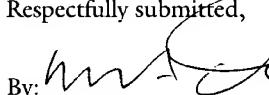
Claim 15 recites a semiconductor assembly that includes “first semiconductor die having a top and a bottom surface” and “a second semiconductor die having a top and bottom surface, said bottom surface having a smaller area than said top surface of said first semiconductor die”. The second die is “secured at its bottom surface to said top surface of said first semiconductor die by a flowable adhesive material which does not extend past a perimeter of said second semiconductor die”. Further, the “top surface of said first semiconductor die has at least one electrical contact area positioned at a location exterior to said perimeter of said second semiconductor die, and wherein a distance between said electrical contact area and said perimeter of said second semiconductor die is less than or equal to about 428 microns”. Claims 16-21 depend from claim 15.

As noted above, King et al. fails to teach or suggest “a flowable adhesive material which does not extend past a perimeter of said second semiconductor die”. Lo et al. provides no relevant disclosure with regard to the recited adhesive material.

For at least the reasons provided above, applicant believes that each of the presently pending claims is in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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